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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,301	01/14/2004	Emily J. Camp	2002-0702.02	4459
21972	7590	06/01/2005	EXAMINER	
LEXMARK INTERNATIONAL, INC. INTELLECTUAL PROPERTY LAW DEPARTMENT 740 WEST NEW CIRCLE ROAD BLDG. 082-1 LEXINGTON, KY 40550-0999			BRASE, SANDRA L	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,301

Applicant(s)

CAMP ET AL.

Examiner

Sandra L. Brase

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-23 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/18/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the fuser assembly including a belt must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-3, 8, 10, 12-14, 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 6,381,422) in view of Idenawa et al. (US 4,188,109).

5. Tanaka (...422) discloses a method of operating an electrophotographic printer, comprising the steps of: transporting a print medium (P) using a print medium transport assembly including a belt and a plurality of rolls (col. 8, line 49-59; and figure 2); transporting the print medium from the print medium transport assembly to a fuser assembly including a driven fuser roll (col. 8, lines 60-66; and figure 2); determining a temperature associated with the fuser roll (col. 9, lines 1-3); and rotating the fuser roll at a speed which is dependent upon the

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determined temperature (abstract; col. 3, lines 44-49; col. 4, lines 18-25 and 31-36; col. 5, lines 9-20; and col. 10, lines 23-27). The rotational speed of the fuser roll is dependent upon an effective diameter of the fuser roll, and the effective diameter being dependent upon the determined temperature (col. 3, lines 43-49; and col. 15, lines 16-28). The nominal operational temperature of the fuser roll is set dependent upon physical properties of the print medium (col. 4, lines 10-13 and 26-30; and col. 10, lines 20-23). However, Tanaka (...422) do not disclose creating a bubble, the transport assembly moving at a first operating speed and the fuser roll rotating at a second operating speed. Idenawa et al. (...109) discloses an electrophotographic printer method including driving a transport assembly at a first operating speed (col. 2, lines 48-59); and rotating a fuser roll at a second operating speed (abstract; and col. 3, lines 30-54). The first operating speed is a linear speed and the second operating speed is a rotational speed (abstract; and col. 3, lines 30-54). The second operating speed is slower than the first operating speed (abstract; and col. 3, lines 30-54). A bubble is created in the print medium between the paper transport assembly and the fuser assembly (abstract; col. 3, lines 30-54; and figure 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to move the transport assembly at the claimed first operating speed, move the fuser roll at the claimed second operating speed, and creating a bubble, as disclosed by Idenawa et al. (...109), since such first and second operating speeds and creation of a bubble prevents wrinkling of the sheet.

6. Claims 4, 5, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 6,381,422) in view of Idenawa et al. (US 4,188,109) as applied to claims 3 and 14 above, and further in view of Watanabe et al. (US 5,819,149).

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7. Tanaka (...422) in view of Idenawa et al. (...109) disclose the features mentioned previously, but do not disclose the percentage increase in the effective diameter of the fuser roll. Watanabe et al. (...149) disclose a fuser roll that increases 1% in its outer peripheral length (col. 3, lines 9-11; and col. 6, lines 29-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the fuser roll increase in effective diameter in the claimed range, since a value in the claimed range, as disclosed by Watanabe et al. (...149) is a known value of increase of a fuser roll due to heat.

8. Claims 6, 7, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 6,381,422) in view of Idenawa et al. (US 4,188,109) as applied to claims 1 and 12 above, and further in view of Ishikawa et al. (US 6,567,640).

9. Tanaka (...422) in view of Idenawa et al. (...109) disclose the features mentioned previously, but do not disclose a specific temperature value associated with a fuser roll. Ishikawa et al. (...640) disclose a temperature of 120° – 180°C associated with the fuser roll (col. 11, lines 3-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to have a temperature value in the claimed range associated with the fuser roll, as disclosed by Ishikawa et al. (...640), since such a temperature value is well known in the art to be associated with a fuser roll that fuses an image to a print medium.

10. Claims 9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 6,381,422) in view of Idenawa et al. (US 4,188,109) as applied to claims 1 and 12 above, and further in view of Murata (US 6,567,624).

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11. Tanaka (...422) in view of Idenawa et al. (...109) disclose the features mentioned previously, but do not disclose that the speed of the fuser roll rotation is at a different speed when a print medium is not present at the fuser roll. Murata (...624) disclose a fuser roll rotating at a different speed when a print medium is not present at the fuser roll as opposed to when the print medium is present at the fuser roll for image fixation (col. 6, lines 34-40). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the fuser roll rotation at a different speed when a print medium is not present at the fuser roll, as disclosed by Murata (...624), so that the fuser roll can be efficiently set to a predetermined fixing temperature.

12. Claims 11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 6,381,422) in view of Idenawa et al. (US 4,188,109) as applied to claims 1 and 12 above, and further in view of Aslam et al. (US 6,799,000).

13. Tanaka (...422) in view of Idenawa et al. (...109) disclose the features mentioned previously, and Tanaka (...422) discloses sensing a temperature (col. 9, lines 1-3), but do not disclose determining the temperature of the fuser roll using a look-up table. Aslam et al. (...000) disclose determining the temperature of a fuser roll using a look-up table (col. 6, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a look-up table to determine a temperature of a fuser roll, as disclosed by Aslam et al. (...000), since such a look-up simplifies the determination of a fuser temperature.

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Allowable Subject Matter

14. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Soures et al. (US 4,017,067) and Pitts et al. (US 6,661,989) disclose creating a bubble in a print media.

Nakamura (US 6,704,526) disclose the speed of a fixing device changing with the increase in diameter of a pressure fuser roller, where the pressure fuser roll undergoes thermal expansion as the temperature increases.

Hooper et al. (US 6,816,686) disclose controlling a fusing speed as a function of fusing temperature.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is (571) 272-2131. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sandra L. Brase
Primary Examiner
Art Unit 2852

May 27, 2005